In the claims

1. (Currently Amended) A method of maintaining activity in a router to keep the router from entering a lock-up state, comprising the steps of:

(a) automatically sending a request from a user computer that is connected to a wide area network by the router which is connected to a modem, the request being sent via the router and the modem[[,]] ~~a request~~ toward a first Internet Protocol (IP) address of a backbone of [[a]] the wide area network to which a response is expected such that the request is sent through and beyond the router and the modem;

(b) determining, in the user computer, whether the response has been received from the first IP address of the backbone of the wide area network and when the response has not been received from the first IP address, then automatically sending a request from the user computer via the router and modem toward a second IP address of the backbone of the wide area network and determining, in the user computer, whether the response has been received from the second IP address of the backbone of the wide area network;

(c) if no response has been received from the first IP address or the second IP address, displaying a notification message on the user computer indicating that network access to the wide area network is unavailable; and

(d) periodically repeating at least steps (a) and (b).

2. (Original) The method of claim 1, wherein the request comprises a ping command.

3. (Previously Presented) The method of claim 2, wherein an Internet Protocol (IP) address is used as a destination address for the ping command.

4. (Cancelled)

5. (Original) The method of claim 1, wherein the step of displaying a notification message comprises a pop-up window.

6. (Original) The method of claim 1, wherein the method is implemented with one of computer software, firmware, or a combination thereof

7. (Original) The method of claim 6, wherein the software is downloaded from the Internet.

8. (Currently Amended) The method of claim 1, further comprising the step of determining if on an immediately preceding iteration no response was received once it has been determined that a response is received in a current iteration and, if so, displaying a notification message indicating that network access has been restored.

9. (Original) The method of claim 1, wherein the network is the Internet.

10. (Currently Amended) In a network having a plurality of user computers in communication with a router, the router being in communication with a Digital Subscriber Line (DSL), the DSL carrying data to and from at least one of the plurality of user computers over the Internet and carrying voice signals to and from a telephone, a method of keeping the router in an operable state, comprising the steps of

(a) periodically and automatically sending from at least one of the user computers towards a first network address of a DSL Access Multiplexer (DSLAM) a request to which a response is expected, the request being sent through the router that is located in a path of communication between the at least one of the user computers and the DSLAM;

(b) determining if the response is received and if not response then automatically sending from the at least one of the user computers towards a second network address of the DSLAM a request to which a response is expected, the request to the second network address being sent through the router that is located in the patch of communication between the at least one of the user computers and the DSLAM;

(c) displaying a first notification message on the at least one user computer when no response is received from either the first network address or the second network address; and

(d) displaying a second notification message on the at least one user computer when the response from either the first or the second network address is received.

11. (Original) The method of claim 10, wherein the request is sent every 5-10 minutes.

12. (Currently Amended) The method of claim 10, wherein the request to the first and second network addresses comprises a ping command.

13. (Currently Amended) The method of claim 12, wherein [[an]] Internet Protocol (IP) ~~address is~~ addresses are used as ~~a destination address~~ the first and second network addresses for the ping command.

14. (Cancelled)

15. (Original) The method of claim 10, wherein the step of displaying a notification message comprises a pop-up window.

16. (Original) The method of claim 10, wherein the method is implemented with one of computer software, firmware, or a combination thereof.

17. (Original) The method of claim 16, wherein the computer software is operable within a multi-tasking computer operating system.

18. (Original) The method of claim 16, wherein the computer software, firmware or combination thereof is automatically launched when the computer is booted.

19. (Original) The method of claim 16, wherein the software is downloaded from the Internet.

20. (Currently Amended) A method of notifying an end user of the status of his Internet access, comprising the steps of:

(a) automatically pinging an Internet Protocol (IP) address of a wide area network from a computer belonging to the end user and connected to a local area network which is in turn connected to a router which is in turn connected to a modem which is in turn connected to the wide area network such that the ping travels through the router and the modem to the wide area network;

(b) determining if a response to the pinging is received at the computer from the wide area network via the modem and router and automatically pinging a second IP address of the wide area network from the computer belonging to the end user; and

(c) displaying a first message indicating that the user's Internet access is unavailable if no response from either the IP address or the second IP address is received, and displaying a second message indicating that the user's Internet access is restored when a response is received from either the IP address or the second IP address, after not receiving a response to a previous pinging.

21. (Original) The method of claim 20, wherein steps (a)-(c) are automatically repeated.

22. (Original) The method of claim 21, wherein repeated pinging keeps the router from entering a lock-up state.

23. (Original) The method of claim 20, wherein the method is implemented in one of software, firmware, or a combination thereof.

24. (Original) The method of claim 23, wherein the software is downloaded from the Internet.

25. (Original) The method of claim 23, wherein the computer software, firmware or a combination thereof is automatically launched when the computer is booted.

26. (Original) The method of claim 20, wherein the computer software is operable within a multi-tasking computer operating system.

27. (Currently Amended) In a network having a plurality of end user computers in communication with a router, the router being in communication with a Digital Subscriber Line (DSL), the DSL carrying data to and from at least one of the plurality of end user computers over the Internet and carrying voice signals to and from a telephone, a system for keeping the router in an operable state, comprising:

(a) means for periodically and automatically sending from at least one of the end user computers towards a first network address of a DSL Access Multiplexer (DSLAM) a request to which a response is expected, the request being sent through the router that is located in a path of communication between the at least one of the user computers and the DSLAM;

(b) means for determining if the response is received and for automatically sending from the at least one of the end user computers towards a second network address of the DSLAM a request to which a response is expected, the request being sent through the router that is located in the path of communication between the at least one of the user computers and the DSLAM;

(c) means for displaying a first notification message on the at least one end user computer when no response is received from either the first or second network addresses; and

(d) means for displaying a second notification message on the at least one end user computer when the response is received from either of the first or second network addresses.

28. (Original) The system of claim 27, wherein the request is sent every 5-10 minutes.

29. (Currently Amended) The system of claim 27, wherein the request to the first and second network addresses comprises a ping command.

30. (Currently Amended) The system of claim 29, wherein [[an]] Internet Protocol (IP) ~~address is~~ addresses are used as ~~a destination address~~ the first and second network addresses for the ping command.

31. (Cancelled)

32. (Original) The system of claim 27, wherein the notification message is in the form of a pop-up window.

33. (Original) The system of claim 27, wherein the means for elements (a)-(d) comprises one of computer software, firmware, or a combination thereof

34. (Original) The system of claim 33, wherein the computer software, firmware or the combination thereof is operable within a multi-tasking computer operating system.

35. (Original) The system of claim 33, wherein the computer software, firmware or combination thereof is automatically launched when the computer is booted.